PROJECT DESCRIPTION

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNALS AT THE INTERSECTIONS OF PENNSYLVANIA/MAUGANS AVENUE AND MACK TRUCK ROAD/MAUGANS AVENUE. NEW TRAFFIC SIGNALS WILL BE CONSTRUCTED AT THE INTERSECTIONS OF MAUGANS AVENUE AND THE INTERSTATE 81 RAMPS WITH FOUNDATIONS AND CONDUIT PLACED FOR FUTURE SIGNALS AT MAUGANS AVENUE AND CRAYTON BOULEVARD. MAUGANS AVENUE IS ASSUMED TO RUN IN A EAST-WEST DIRECTION

INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING FOUR (4) NEMA PHASES. EXCLUSIVE/PERMISSIVE LEFT TURN PHASING WILL BE PROVIDED FOR WEST AND SOUTH BOUND APPROACHES.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR CHANNEL, INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY DAVE SHRADER OF THE WASHINGTON COUNTY HIGHWAY DEPARTMENT AT 240-313-2715 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SHRADER THE NEAREST STREET ADDRESSES, ZIP CODES, AND PHONE NUMBERS FOR EACH INTERSECTION.

MAINTENANCE OF TRAFFIC

THE TRAFFIC CONTROL PLANS PROVIDED WITHIN THIS SET OF CONSTRUCTION PLANS SHALL BE USED FOR THE PROJECT.

PROJECT CONTACTS

THE CONTACT PERSONS FOR THE WASHINGTON COUNTY ENGINEERING DEPARTMENT AS AS FOLLOWS:

TDB
PROJECT MANAGER
PHONE: 313-240-2417

MR. DAVE SHRADER
SIGNAL OPERATIONS
PHONE: 240-313-2720

MR. DAVID A. MASON
DESIGN ENGINEER
PHONE: 240-313-2408

MR. ROBERT SLOCUM
DEPUTY CHIEF ENGINEER
PHONE: 240-313-2418

CONTACT PERSONS FOR MD-SHA ARE AS FOLLOWS:

MR. GEORGE H. SMALL
ASSISTANT DISTRICT ENGINEER - TRAFFIC
(301) 729-8444

MR. JOHN TRUE
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
(301) 729-8411

MR. TONY CRAWFORD
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(301) 729-8457

MR. ROBERT ROWAN
UTILITY ENGINEER
(301) 729-8439

CONTACT PERSONS FOR OOPS ARE AS FOLLOWS:

MR. RICHARD DAFF, SR.
CHIEF TRAFFIC OPERATIONS
(410) 787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION, CHIEF
TRAFFIC OPERATIONS
(410) 787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
(410) 787-7630

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
(410) 787-7676

MR. MIKE STOCKER
SIGNAL SHOP WAREHOUSE
(410) 787-7696

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

QUANTITY	DESCRIPTION
1 EACH	FOUR PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN NEMA SIZE "6" BASE MOUNTED CABINET
37 S.F.	SHEET ALUMINUM SIGNS TO CONSISTS OF: - 1 EACH R3-1 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT - 1 EACH R3-2 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT - 1 EACH R3-5L SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT - 2 EACH 3-4 SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT - 1 EACH S-4 SIGN (16 IN. X 39 IN.) - MAST ARM MOUNT
1 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND OR INSTALLED BY THE CONTRACTOR

QUANTITY	DESCRIPTION
LUMP SUM	MAINTENANCE OF TRAFFIC
20 C.Y.	TEST PIT EXCAVATION
1 EACH	STEEL POLE WITH TWIN 50 FT. MAST ARMS
1 EACH	STEEL POLE WITH A 50 FT. MAST ARM
1 EACH	STEEL PEDESTAL POLE
9 C.Y.	CONCRETE FOR SIGNAL FOUNDATIONS
475 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
320 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
350 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
20 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
190 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
40 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
350 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
20 L.F.	1 INCH FLEXIBLE TUBING
1 EACH	ELECTRICAL UTILITY SERVICE EQUIPMENT W/ 200 AMP METER PEDESTAL
2 EACH	FURNISH AND INSTALL OPTICOM EMERGENCY VEHICLE PRE-EMPTION DETECTOR EYE
20 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8 EACH	FURNISH AND INSTALL HANDHOLE
37 S.F.	INSTALL OVERHEAD AND POLE MOUNTED SIGN
3 EACH	VIDEO DETECTION CAMERA
2 EACH	CONTROL CABLE, 200 FT, VIDEO CAMERA TO CONTROLLER
1 EACH	CONTROL CABLE, 250 FT, VIDEO CAMERA TO CONTROLLER
1 EACH	10 FT BREAKAWAY PEDESTAL
2 EACH	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
2 EACH	15 FT LIGHTING ARM
6 EACH	GROUND ROD - 0.75 INCH DIAMETER X 10 FT LENGTH
3 EACH	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
25 EACH	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
200 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
350 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
450 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
50 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
640 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
650 L.F.	ELECTRICAL CABLE - 24 CONDUCTOR (NO. 14 AWG)
90 L.F.	SAW CUT FOR SIGNAL (QUADRAPOLE)
1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

HANDHOLE LOCATIONS[1]

NO.	DESCRIPTION OF LOCATION	STATION	OFFSET
1	81 SB RAMP @ POLE J	22+47.81	29.23' RT
2	81 SB RAMP @ POLE A	22+91.64	33.70' RT
3	81 SB RAMP @ POLE B	22+18.93	42.59' LT
4	81 SB RAMP @ CONTROLER	22+75.60	68.14' LT
5	81 SB RAMP @ QUADRAPOLE	22+05.11	342.16' LT
6	FUTURE INTERCONNECT	23+01.21	49.75' LT
7	FUTURE INTERCONNECT	24+13.83	45.13' LT
8	FUTURE INTERCONNECT	26+15.86	46.49' LT

SIGNAL POLE LOCATIONS[2]

DESCRIPTION OF LOCATION	STATION	OFFSET
81 SB RAMP - POLE A	22+93.95	35.65' RT
81 SB RAMP - POLE B	22+46.67	44.58' LT
81 SB RAMP - POLE J	22+44.81	28.81' RT

CONTROLER BOX LOCATIONS[3]

DESCRIPTION OF LOCATION	STATION	OFFSET
81 SB RAMP	22+77.73	71.82' LT

[1] STATION/OFFSET LOCATIONS ARE BASED ON THE APPROXIMATE CENTER OF THE HANDHOLE.
[2] STATION/OFFSET LOCATIONS ARE BASED ON THE CENTER OF THE POLE.
[3] STATION/OFFSET LOCATIONS ARE BASED ON THE CENTER OF THE CONTROLLER BOX.

APPROVALS

TEAM LEADER - TRAFFIC ENGINEERING DESIGN DIVISION — 10-26-06

ASSISTANT - TRAFFIC ENGINEERING DESIGN DIVISION — for Mickey Ruckar

CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION — 10/26/06

DIRECTOR - TRAFFIC AND SAFETY — 10/27/06

SHA No.: BW707M83
Maughan's Avenue: I-81 to US 11

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MAUAGNS AVENUE AND
I-81 SOUTHBOUND RAMPS

TRAFFIC SIGNAL PLANS

NO.	REVISION DESCRIPTION	BY	DATE

DESIGNED BY: D.A.M.
DRAWN BY: D.A.M.
CHECKED BY: J.S.
DATE: 10-25-06

DIVISION OF PUBLIC WORKS
WASHINGTON COUNTY, MARYLAND
ENGINEERING DEPARTMENT

Washington County Administration Building
80 W. Baltimore St., Hagerstown, MD 21740
Phone: 240-313-2400 Fax: 240-313-2401

MAUGANS AVE. & PENNSYLVANIA AVE.
RECONSTRUCTION

SIGNAL PLANS - NOTES
I-81 SOUTHBOUND RAMPS

SCALE
AS SHOWN

SHEET NO.
SP-01

PROJECT NO. 10-140

DWG. No. 58 OF 146